lung there were three deaths from severe marrow depression.—I am, etc.,

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Respiratory Stimulants

SIR,—It is well recognized that the hypercapnia and hypoxia of acute-on-chronic bronchitis must be treated as an emergency. The paper by Dr. M. W. McNicol and his colleagues (March 9, p. 646) provides further information on the use of nikethamide for CO₂-retention. Most observers would, I feel, agree that the therapeutic and toxic doses of this drug are too near to each other, and in fact usually overlap, especially when given intravenously in a dose of about 6 ml. Amiphenazole has not proved so toxic and in fact its main side-effect of vomiting often aids expectoration of sputum.^{1 2}

Recently another analeptic drug has been introduced, namely prethcamide ("micoren").^{3 4} Its only common side-effect in therapeutic dosage has been skin irritation with some agitation. In common with all analeptics it works best when injected undiluted intravenously though it may be injected intramuscularly and given by infusion. The accompanying graph shows the great increase in minute volume (measured with a Wright's respirometer) on a male patient aged 52 with hypercapnia after being given two ampoules (3 ml. of 15% prethcamide) intravenously over three to four minutes. When this same patient was injected intravenously with one ampoule (1.5 ml.) his arterial PCO₂ dropped from 80 mm. Hg to 53 mm. Hg after nine minutes, rising to 68 mm. Hg after 21 minutes and to 78 mm. Hg after 32 minutes. (The arterial PCO₂ determinations were made using the Campbell-Haldane⁵ analyser.) Even in patients with respiratory failure where such dramatic results were not obtained many were rendered sufficiently alert to use a patient-triggered respirator or were able to breathe oxygen without slipping into coma. How-

ever, I entirely agree with the authors that frequent assessments of the patients are essential, for it is little use to the patients if they are pink but still grossly hypercapnic. And as Westlake and Campbell⁶ have outlined, the increased work of breathing in a patient when given a respiratory stimulant may limit the use of this type of drug.—I am, etc.,

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"Caprin"

SIR,—My experience has been similar to that of Dr. B. W. McGuinness (February 23, p. 539). In correspondence with West Pharmaceutical Company Ltd. I have criticized them about their advertising. In an advertisement in *M.I.M.S.* they quoted two references, one of which was not concerned with salicylates, while the other reported occult bleeding after aspirin but made no mention of "caprin." On an index card the bibliography cited four articles on aspirin-induced bleeding, none of which made any mention of caprin and none of which appeared to be relevant to the other information on the card, which was entirely confined to caprin. When I remonstrated with the company for passing over my criticisms about this their only reply was that they were always ready to receive constructive criticism.

It is even more disturbing that a pharmaceutical company should make claims for a product without describing experimental work in support of these claims. The advertisement in *M.I.M.S.* stated "aspirin that cannot cause gastric irritation or bleeding." The company's medical department have informed me that "at no time have we made any claim for 'caprin' which cannot be substantiated." I have studied occult bleeding after caprin in five subjects, and have compared it with that caused by aspirin in the same subjects—the technique has been described in an earlier paper.¹ The uniformity of the results shows that caprin has caused at least as much bleeding as does plain aspirin in the subjects that I have studied.—I am, etc.,

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Dangers of Monoamine Oxidase Inhibitors

SIR,—Drs. D. Pells Cocks and Anne H. Passmore-Rowe (December 8, 1962, p. 1545) and Dr. P. H. Denton and others (December 29, 1962, p. 1752) have given a list of monoamine oxidase inhibitors used in psychiatry which may produce adverse effects when used with other drugs—for example, pethidine.

There are at least two other monoamine oxidase inhibitors, not on their list, which have been used in the treatment of angina pectoris and which possibly could have similar ill effects.

These are "marsilid" (iproniazid) and "tersavid" (pivazide).—I am, etc.,

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